

CLAIMS

1. A fixing apparatus comprising:

a magnetic flux generation section that generates magnetic flux;

5 a heat-producing element that is induction-heated by the magnetic flux;

a magnetic path forming element that is positioned opposite said heat-producing element and forms a magnetic flux path between said magnetic flux generation section and said heat-producing element;

a magnetism suppressing element that is provided in said magnetic path forming element and, by coming to a masking position that masks at least part of a magnetic flux path corresponding to a paper non-passage area of said heat-producing element between said magnetic path forming element and said heat-producing element, suppresses magnetic coupling between said magnetic path forming element and said heat-producing element, the magnetic coupling being corresponding to the paper non-passage area; and

a rotation section that by means of rotation causes said magnetism suppressing element to come to the masking position and a withdrawal position withdrawn from the masking position.

25

2. The fixing apparatus according to claim 1, wherein:
said magnetic flux generation section has an

exciting coil that extends in a paper passage width direction of said heat-producing element and is wound so as to loop back at both edges of said heat-producing element, and a core that covers said exciting coil; and

5 said magnetic path forming element is composed of a center core located in the center of windings of said exciting coil.

3. The fixing apparatus according to claim 1, further comprising a rotation section that rotates said magnetic path forming element,

 wherein said magnetism suppressing element composed of a cutaway part that widens a distance between an opposite surface of said magnetic path forming element facing a paper non-passage area of said heat-producing element and said heat-producing element is formed in said magnetic path forming element.

4. The fixing apparatus according to claim 1, further comprising a rotation section that rotates said magnetic path forming element,

 wherein said magnetism suppressing element composed of a stepped part that varies a rotational-direction width of an opposite surface of said magnetic path forming element facing a paper non-passage area of said heat-producing element is formed in said magnetic path forming element.

5. The fixing apparatus according to claim 1, wherein said magnetism suppressing element is composed of a magnetism masking member formed from an electrical conductor that masks magnetic coupling between said magnetic flux generation section and said heat-producing element corresponding to a paper non-passage area of said heat-producing element.

10 6. The fixing apparatus according to claim 2, wherein said core covering said exciting coil has a bypass path section forming a magnetic flux path so as to circumvent said center core on a side facing said heat-producing element with said center core therebetween.

15 7. The fixing apparatus according to claim 1, wherein said magnetism suppressing element is provided on an endless belt suspended rotatably on said magnetic path forming element.

20 8. The fixing apparatus according to claim 1, wherein:
said magnetic flux generation section has an exciting coil that extends in a paper passage width direction of said heat-producing element and is wound so as to loop back at both edges of said heat-producing element, and a core that covers said exciting coil; and
said magnetic path forming element on which said

magnetism suppressing element is provided is composed of a side core that is provided on a side part of said exciting coil and transects a magnetic path of said core.

5 9. The fixing apparatus according to claim 1, wherein said magnetic flux generation section is provided outside said heat-producing element.

10 10. The fixing apparatus according to claim 1, wherein said magnetic flux generation section comprises:

an exciting coil that extends in a paper passage width direction of said heat-producing element and is wound so as to loop back at both edges of said heat-producing element;

15 a core that covers said exciting coil; and

a leakage magnetism masking member that is provided between said exciting coil and said core, and masks leakage flux that reaches said heat-producing element from said core via said exciting coil.

20

11. The fixing apparatus according to claim 10, wherein a rotational-direction width of said heat-producing element of said leakage magnetism masking member is narrower than a rotational-direction width of said heat-producing element of the exciting coil.

25

12. The fixing apparatus according to claim 1, wherein

said heat-producing element is made of magnetic material.

13. An image forming apparatus comprising the fixing apparatus according to claim 1.